

**15th International Conference on Plastination
Honolulu, Hawaii, USA,
July 19-24, 2010**

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Overview:

The 15th Annual ISP meeting was held jointly with the 27th Annual meeting of the American Association of Clinical Anatomists. This meeting represented the first joint meeting in which the ISP has ever engaged. The theme of the joint meeting was titled “*Hot Topics in the Tropics: Plastination and Anatomical Education.*” The theme was particularly timely given the rapid technological advances in the field of plastination as applied to medical and allied medical education, as well as the complex ethical issues that surround this preservation technology. The program brought together a wide range of distinguished experts from over 25 countries and six continents.

Program:

The scientific component of the program extended over five days and included plenary sessions focusing on plastination as applied to anatomical education, as well as two ISP platform sessions.

A plenary session was given by Dr. D. Gareth Jones and titled “*Finding a Context for Plastination within the Development of Anatomy: Aberration or Pathfinder?*” He compared trends in plastination with body donations and presented several interesting paradoxes and ethical dilemmas with respect to anatomical donations and application of the material by anatomy instructors. The Harmon Bickley Memorial lecture was titled “*Can Human Dignity be Preserved? Ethical Issues Surrounding Plastinated Specimens*” and presented as a joint effort between an anatomist, Dr. Charleen M. Moore and ethicist, Dr. C. Mackenzie Brown. This unique presentation centered on ethical concerns of the modern body exhibits and the underlying criterion for respect of human dignity when subjecting cadaveric material to plastination.

Dr. Ben Young gave the Vincent J. De Feo Memorial lecture titled “*The Role of Anatomical Education in Hawaiian Medical History*”. Dr. Young was one of only 10 native Hawaiian physicians in Hawaii in 1972 and he shared his experience as a young physician and his role in several milestone cultural events, including serving as the physician on the first voyage of the Hokulea, serving to attract young native Hawaiians into the field of medicine as well as the role of anatomy in the Hawaiian culture.

The first ISP platform session had presentations on the fundamentals of plastination. Dr. Carlos Baptista moderated the session and began by presenting a general background of the principles and equipment necessary for establishing a plastination laboratory. Subsequent presentations focused on technical aspects of E12 sheet plastination (Dr. Constantin Sora), P40 (Dr. Rafael Latorre) and room temperature plastination (Dr. Ameer Raouf). This session provided a technical basis for the subsequent platform session.

The second ISP platform session was moderated by Dr. Ming Zhang and focused on plastination in education and research. Dr. Hongjin Sui described his group’s efforts to provide educational experiences in

public education using plastinated materials. Dr. Shengebo Yu described research aimed at developing techniques for large animal plastination and use in veterinary medical education. Dr. Remu Dhingra reported on plastination methods for lungs while Dr. Rani Kumar provided an orthopedic educational experience utilizing plastinated knees. Mandeep Gill Sagoo described methods and applications of plastinated brain slices. Dr. Sora presented his group's efforts to generate 3-D models of anatomical structures utilizing serially sectioned plastinated thin sections.

Many ISP members also made presentations during several poster sessions.

The joint ISP/AACA Educational Affairs Committee Symposium focused on the use of plastinated specimens in medical and allied medical education. Dr. Peter Ward presented the educational value of having students create plastinates as a way to gain anatomical expertise. Using plastinated anatomical specimens as an essential resource at the University of Michigan over two decades was discussed by Dr. Ameer Raof. Dr. Kaori Tamura gave a presentation on using plastinated material to demonstrate sports medicine and kinesiology concepts. The final speaker was Dr. Mark Pizzimenti who shared the University of Iowa's success in using plastinated dissections for study and exams. Following the presentations, a lively open discussion followed concerning the ethics of plastination, particularly related to commercial body exhibits.

Post Graduate Course

The postgraduate course was held on Saturday, July 24th in the Department of Anatomy, John A. Burns School of Medicine. The objective of the postgraduate course was to facilitate a unique "hands-on" experience complementing the didactic information communicated during the scientific sessions. By the end of the course, participants were expected to be able to undertake P40 and S10 methods, comprehend the underlying theoretical aspects of plastination, appreciate the tools required to set up a plastination laboratory, and understand basic safety issues pertaining to the plastination methods. Specifically, participants undertook the following exercises:

- Sliced a well-fixed brain on a deli/meat slicer to a thickness of 2-3 mm, suitable for polyester plastination (P40 technique).
- Dehydrated tissue with freeze substitution in -25°C acetone.
- Gained an understanding of forced impregnation of brain/tissue slices for the P40 technique.
- Built a flat chamber around a brain/tissue slice and cast a P40 slice.
- Learned how to cure a P40 slice either outside in the shade or indoors with a UVA light set-up.
- Gained an understanding of forced impregnation of room-temperature plastinates.
- Cured room temperature impregnated specimens by applying a catalyst and wrapping specimens.

The course was developed and organized by Steven Labrash. Instructors for the workshop included several ISP members: Ameer Raof, Constantine Sora, Rafael Latorre, Carlos Baptista, Selcuk Tunali, Scott Lozanoff and Steven Labrash. There were 80 participants for the hands-on workshop. An instructional DVD was distributed to all of the participants while several sample specimens derived from non-human tissues were also distributed.



AAAC & ISP Post Graduate Course, John A. Burns School of Medicine

July 24, 2010, Honolulu, Hawaii